

PP 007 - EFFECTIVENESS OF ANDROGENS ADMINISTRATION ON BODY COMPOSITION IN HIV-INFECTED MEN: A META-ANALYSIS

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Background: The human immunodeficiency virus (HIV)-related wasting syndrome (WS) identifies the body composition changes commonly affecting the HIV population under highly active antiretroviral therapy (HAART). WS remains a relevant medical problem in HIV-infected patients, considering its relationship with metabolic complications, disease progression, premature aging and impaired survival. Anabolic properties characterizing testosterone (T) or T-derived analogues made the androgen-supplementation an attractive therapeutic option at preventing WS in this population, although a clear demonstration of its beneficial effect is not achieved so far.

Aim of the study: This meta-analysis was designed to comprehensively evaluate the effectiveness and safety of T and others androgenic therapy in HIV setting, focusing on male patients.

Methods: All randomized, controlled clinical trials evaluating androgens administration on body compositions parameters comparing HIV androgens-treated men vs HIV-untreated or healthy untreated controls were considered eligible. To highlight the efficacy of androgens administration, total and free T serum levels were further analysed, and the treatment safety was evaluated considering the dropout and the adverse events rates.

Results: Twenty-one studies were included, comparing 661 HIV androgen-treated and 606 placebo-treated men. A significant increase in body weight was depicted in T-treated men ($p=0.008$). The same beneficial effect was observed considering lean body mass ($p<0.001$) and fat-free mass changes ($p<0.001$), independently from the androgen molecule used (T or Nandrolone). No differences were found considering fat mass and body mass cell. Both total ($p<0.001$) and free ($p<0.001$) T serum levels increased after T use, rather than androgen-related molecules, associated with a significant decrease of sex hormone binding globulin levels ($p<0.001$). The adverse events rate was higher in androgen-treated compared to controls ($p=0.020$).

Conclusion: The androgenic treatment for anabolic purposes in HIV male patients leads to a mild improvement of some body composition parameters, although not predictable. Considering the general frailty of HIV patients and the significant adverse effects burden characterizing the anabolic androgen therapy, a personalized and tailored therapeutic approach remains more than ever mandatory in such patients.